DOCUMENT RESUME

ED 117 171 TM 005 027

AUTHOR Alvir, Howard P.
TITLE Nine Performance Procedure Competencies with Which to Analyze, Organize, and Develop Hands-On Performance Evaluation.
PUB DATE 16 Jul 74
NOTE 13p.

EDRS PRICE MF-$0.76 HC-$1.58 Plus Postage
DESCRIPTORS *Criterion Referenced Tests; Elementary Secondary Education; *Guides; *Performance Tests; *Psychomotor Skills; *Test Construction

ABSTRACT

This document contains a number of processes and criteria levels with which the progressive test writer should be familiar in order to measure more than cognitive success. These processes allow test writers to examine existing paper and pencil examinations in order to sound out implications for performance testing. Hands-on performance testing is referred to as criterion-referenced testing (CRT) in the psychomotor or performance domain. This is one step beyond paper and pencil tests (PPT) which function mainly in the cognitive or knowledge domain and hardly ever at all in the performance domain of practical application. It should be sufficient for the typical test writer to work through these processes and criteria levels with two or three examples in order to derive maximum benefit. This experience will sharpen t e purposes, yardsticks, and repertories of experienced test writers enough to enable automatic application of these processes and criteria level without the necessity of constantly referring back to this procedures manual. This document is intended to help develop better hands-on performance evaluation instruments. (Author/DEP)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED117171

TITLE

NINE PERFORMANCE PROCEDURE COMPETENCIES WITH WHICH TO ANALYZE, ORGANIZE, AND DEVELOP HANDS-ON PERFORMANCE EVALUATION

AUTHOR

Howard P. Alvir, Ph.D.
Room 468 - EBA
RCU-BOER
New York State Education Department
Albany, N.Y. 12224

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

DATE

July 16, 1974

KNOWLEDGE OBJECTIVE — This material will help a teacher develop a format for psychomotor performance testing.

PERFORMANCE OBJECTIVE — The guidelines contained herein will help a teacher apply performance testing in a variety of settings.

ATTITUDE OBJECTIVE — This material will draw out the best in a teacher's repertoire in a form that can be utilized elsewhere.

TM005 027

INTRODUCTION

This short document contains a number of processes and criteria levels with which the progressive test writer should be familiar in order to measure more than cognitive success. These processes allow test writers to examine existing paper and pencil examinations in order to sound out implications for performance testing. Hands-on performance testing is referred to as criterion-referenced testing (CRT) in the psychomotor or performance domain. This is one step beyond paper and pencil tests (PPT) which function mainly in the cognitive or knowledge domain and hardly ever at all in the performance domain of practical application.

It should be sufficient for the typical test writer to work through these processes and criteria levels with two or three examples in order to derive maximum benefit. This experience will sharpen the purposes, yardsticks, and repertoires of experienced test writers enough to enable automatic application of these processes and criteria level without the necessity of constantly referring back to this procedures manual.

This document is intended to help develop better hands-on performance evaluation instruments.

The following page summarizes the path to CRT as herein presented.

The following nine procedures should be examined carefully in order to preview and overview the process of developing CRT items appropriate to "hands-on" observation, testing, and evaluation in the performance or psychomotor domain.

PERFORMANCE (CRITERION-REFERENCED) TESTING "HANDS-ON" WORK SESSIONS

(The Path from Content-Referenced to Criterion-Reference)

Performance

1. Examine (a) sources such as ERIC microfiche, Armed Forces, State agencies, commercial outlets, and others where these performance tests may be found
   (b) examples of performance tests
2. Analyze the format of typical performance tests
3. Develop performance test items
4. Evaluate test items already developed to see if these items meet performance test criteria
5. Relate steps 1, 2, 3, and 4 above to self-paced learner progress
6. Foresee specific difficulties in apply performance testing in the classroom and in the lab or shop
7. Make sure criterion values are in line with course objectives
8. Document learner success toward prespecified objectives
9. Exchange successful practices with colleagues

The above procedure performances should be kept in mind while reading, filling in, and discussing the following pages. The reason for writing responses is to provide a concrete basis for interaction with professional colleagues.

Followup samples of how the above nine procedures have been used by occupational educators are available to individuals submitting original responses to the questions on the following pages. For maximum benefit, this sample followup material should be read only after an individual educator has gone through all nine procedures. This stress on independent responses is intended to stress creativity more than imitation.

PERFORMANCE 1

----------PERSPECTIVE----------

A. SUBJECT MATTER: Examples and sources of performance tests

B. TASK 1: Examine (a) sources such as ERIC microfiche, Armed Forces, State agencies, commercial outlets, and others where these performance tests may be found; (b) examples of performance tests

---

STEP 1: Identify one source of performance tests and obtain a sample.

Which source was identified? _____

_____

_____

STEP 2: Look at one example of a performance test.

Which example was examined? _____

_____

_____

STEP 3: Evaluate the usability of this performance test.

How usable is it? _____

_____

_____

STEP 4: Keep on repeating steps 1, 2, 3, above until a usable sample performance test is obtained.

PERFORMANCE 2

----------PERSPECTIVE----------

A. SUBJECT MATTER: Analysis of typical criterion-referenced test (CRT)

B. TASK 2: Analyze the format of typical performance tests

STEP 1: Pinpoint one test item for analysis.

Reproduce (or attach) the test item under analysis:

_____

_____

_____

STEP 2: Analyze one test item to determine which objective (or criterion) is being evaluated.

_____

_____

_____

Which criteria are specified? _____

_____

_____

STEP 3: Verify the answer key, scoring directions, or evaluation process.

Reproduce (or attach) the answer key, scoring directions, or evaluation process:

_____

_____

_____

PERFORMANCE 3

----------PERSPECTIVE----------

A. SUBJECT MATTER: Development of C-R test items

B. TASK 3: Develop performance test items

STEP 1: Pinpoint an important course outcome.

What is this important course outcome?

_____

_____

_____

STEP 2: Describe how success on this important course outcome is measured and by which yardsticks?

Which yardsticks are used as criteria?

_____

_____

_____

STEP 3: Perform performance 2 on the above criteria and measuring instruments.

NOTE: At this point, is is just as important to test out ideas as it is to write out practical suggestions.

PERFORMANCE 4

PERSPECTIVE

A. SUBJECT MATTER: Feedback and self-evaluation

B. TASK 4: Evaluate test items already developed to see if these items meet performance test criteria

---

STEP 1: Choose a format for CRT that is meaningful and relevant to local teachers and learners.

Describe this format in a few words:

_____

_____

_____

STEP 2: Justify the specific format selected.

What is the most outstanding feature of the format chosen?

_____

_____

_____

STEP 3: Incorporate learner reactions to the format.

How was the final format improved through the use of learner recommendations?

_____

_____

_____

PERFORMANCE 5

----------PERSPECTIVE----------

A. SUBJECT MATTER: Systems development

B. TASK 5: Relate steps 1, 2, 3, and 4 to self-paced learner progress

---

STEP 1: Measure productivity in terms of learner success and satisfaction.

What should be looked for in trying to document learner achievement and learner growth?

_____

_____

_____

STEP 2: Reward all attempts at individual progress.

When must individual gains scores, no matter how small, be given priority over productivity as measured by professional standards?

_____

_____

_____

STEP 3: Foster productivity standards among learners in realistic settings.

When must productivity be stressed with successful, but slow achieving learners?

_____

_____

_____

PERFORMANCE 6

PERSPECTIVE

A. SUBJECT MATTER: Planning specifications

B. TASK 6: Foresee specific difficulties in applying performance testing in the classroom and in the lab or shop.

STEP 1: Measure the highest level of complexity upon which mastery is judged.

What is the highest level of mastery in the test item under development?

___ _____

___ _____

___ _____

STEP 2: Set up a scale of benchmarks from the first taste of mastery (for a beginner) to the highest mastery (for experts).

What is the first sign of success that can normally be expected from a slow beginner?

_____

___ _____

___ _____

STEP 3: Simulate the typical difficulties encountered by most learners before achieving mastery.

Where do most learners have difficulty?

___ _____

_____

_____

PERFORMANCE 7

----------PERSPECTIVE----------

A. SUBJECT MATTER: Areas for self-evaluation

B. TASK 7: Make sure criterion values are in line with course objectives of learners

---

STEP 1: Define success.

Write a short definition of success.

_____

_____

STEP 2: Document successful learners in terms of non-cognitive achievements.

What have the most successful learners done career-wise with acquired skills?

_____

_____

STEP 3: Tie career objectives together for learner consumption and progress.

What have ordinary, but successful learners done career-wise with acquired skills?

_____

_____

STEP 4: Recognize success on all levels of competency.

What have unsuccessful learners done career-wise with one or two skills acquired in this area?

_____

_____

PERFORMANCE 8

PERSPECTIVE

A. SUBJECT MATTER: Learner gains scores

B. TASK 8: Document learner success toward prespecified objectives

---

STEP 1: Pinpoint prerequisites necessary for learners before beginning attempts at mastering a specific objective.

What is the objective to be mastered?

_____

_____

What are the prerequisites required of any beginner?

_____

_____

STEP 2: Provide two or three alternatives for learners in need of remediation.

What are some inexpensive and currently available forms of remediation?

_____

_____

STEP 3: Evaluate the learner's transition from lack of necessary preparation to readiness for a prespecified objective.

What are some simple evaluation tools that tell the difference between the prepared and unprepared learner?

_____

_____

PERFORMANCE 9

----------PERSPECTIVE----------

A. SUBJECT MATTER: Dissemination of practical techniques.

B. TASK 9: Exchange successful practices with colleagues

STEP 1: Stress the most important evaluation techniques for practical daily usage.

What is the most important piece of advice that should be given to a teacher who is beginning to develop performance testing?

_____

_____

_____

STEP 2: Pinpoint one or two of the most urgent and unsolved problems that arise when dealing with performance evaluation.

What is the most urgent and unsolved problem in dealing with performance testing?

_____

_____

_____

STEP 3: Pick up helpful suggestions from co-workers.

What is a practical suggestion that has been encountered from colleagues during this working session?

_____

_____

_____